

ORIGINAL

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C.

In re:

AMENDMENT OF SECTION 73.622 (b)
TABLE OF ALLOTMENTS
DTV BROADCAST STATIONS
LITTLE ROCK, ARKANSAS)
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)
)

MM Docket No.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARYTO: Chief, Allocations Branch
Policy and Rules Division**PETITION FOR RULEMAKING**

Arkansas Educational Television Commission ("AETC"), licensee of noncommercial educational station KETS(TV) ("KETS"), Channel *2, Little Rock, Arkansas, by its attorneys and pursuant to the Commission's Rules, hereby requests that the Commission institute a rulemaking proceeding to amend Section 73.622(b) of its Rules to substitute DTV Channel *5 in lieu of DTV Channel *47 as KETS's paired digital channel in Little Rock, Arkansas. This substitution of paired digital channels would serve the public interest. In addition, as the attached technical documentation demonstrates, KETS's proposed operation on Channel *5 will not cause impermissible interference to any other stations.

AETC proposes the following amendment to Section 73.622(b) of the Commission's Rules:

<u>Community</u>	<u>Present</u>	<u>Proposed</u>
Little Rock, Arkansas	12c, 22, 30, 32, 43c, *47	*5, 12c, 22, 30, 32, 43c

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In support of this petition, AETC submits the following:

A. Background.

AETC, a statewide public broadcaster and a government entity in the State of Arkansas, is the licensee of noncommercial educational television stations KETS, Little Rock, KETG, Arkadelphia, KAFT, Fayetteville, KEMV, Mountain View and KTEJ, Jonesboro. These stations are linked via broadcast auxiliary microwave stations to form the Arkansas Educational Television Network (AETN), which brings educational, cultural and informational programming, including children's programming, to all reaches of the State of Arkansas. AETN is Arkansas' only statewide television network, broadcasting to 90 percent of the state.

AETC has operated noncommercial educational station KETS on analog Channel *2 at Little Rock since 1966, providing the Little Rock area with noncommercial television service designed to inform, educate, motivate, entertain, enlighten and inspire.

B. The Proposed Change to the Table of Allotments Will Serve the Public Interest.

The proposed change to the DTV Table of Allotments will serve the public interest by enhancing KETS's and AETC's ability to provide high quality noncommercial educational programming.

The proposed substitution will allow AETC to preserve its and the Arkansas taxpayers' resources. By necessity, as a government entity operating a statewide public television network, AETC must be a careful steward of its resources, even while it seeks to offer the highest quality of public broadcasting service. AETC has looked forward to the activation of DTV facilities. The allocation of Channel *47 as its paired DTV channel, however, has created obstacles to the achievement of its goals. Substantial hardship will be inflicted upon AETC if it is required to activate its DTV channel on UHF Channel *47. Operation of that DTV station with power levels

of 1000 kw as contemplated by the Commission will result in additional massive electrical power costs. This is in itself a devastating problem for this government entity operating with limited resources. This expense is especially significant in light of the fact that AETC has four additional DTV stations to construct, operate and maintain, all within a short span of time.

C. The Proposed Change to the Table of Allotments Will Not Result in Impermissible Interference with Surrounding Stations.

Under Section § 73.622(f)(5) of the Commission Rules, an existing licensee with DTV allotment may seek a change in the station's channel if the licensee demonstrates that the change "complies with the technical criteria in §73.623(c), and thereby will not result in new interference exceeding the *de minimis* standard set forth in that section . . ." In accordance with these rules, AETC requests that the Commission substitute DTV Channel *5, at a power/height combination of no more than 2.2kw/543m, for DTV Channel *47. As the engineering statement accompanying this petition demonstrates, the proposed operation of KETS-DT on Channel *5 with ERP of 2.2 kw (utilizing a directional antenna) and HAAT of 543 m would in fact result in no impermissible interference to any other station. It would also comply with the community coverage requirements.

CONCLUSION

For all of these reasons, AETC requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to substitute DTV Channel *5 for DTV Channel *47 as the paired channel for KETS in Little Rock, Arkansas. If the Commission grants this petition and modifies the DTV Table of Allotments accordingly, AETC is committed to applying for and constructing its DTV station on Channel *5.

Respectfully Submitted,

ARKANSAS EDUCATIONAL
TELEVISION COMMISSION

By: Todd D. Gray
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May 8, 2000

ENGINEERING STATEMENT

**Of
Dennis W. Wallace
Wallace & Associates**

**In support of
Petition for Rule Making
Non-Commercial Digital Television Allotment
Little Rock, Arkansas
For Petitioner**

Arkansas Educational Television Commission

KETS-TV

Little Rock, Arkansas

Background

Arkansas Educational Television Commission, (AETC) is licensee of KETS-TV, which serves the Little Rock, Arkansas market with NTSC service on Channel 2. In its Sixth Report and Order, the Federal Communications Commission (Commission) allotted Channel 47 to Little Rock to be paired with KETS for its DTV service. For reasons explained elsewhere in this petition, AETC is requesting the Commission to allot DTV channel 5 to Little Rock to be paired with KETS-TV, channel 2, in place of channel 47.

This Engineering Statement has been prepared in support of a petition to amend the DTV allotment table as set forth in Section 73.622(b) and, more specifically,

	<u>Channel Number</u>	
	Present	Proposed
Arkansas		
•		
•		
Little Rock	*47	*5
•		

Allotment Study

It is proposed to change the Channel *47 DTV allotment to Channel *5 while maintaining the other allotment parameters regarding transmitter and tower location and height above average terrain.

A study has been conducted using TechWare software utilizing the parameters and criteria from the Commission's OET Bulletin 69 to evaluate potential interference, which would be caused by operation on Channel 5 at Little Rock. It was determined that two stations would be effected by the proposed operation on channel 5. However, the study appended hereto demonstrates that an Effective Radiated Power (ERP) of 2.2 kW using a directional antenna system does meet the *de minimus* interference requirement to the other effected stations.

The study indicates that the proposed operation would increase the service loss to KFSM-TV, Fort Smith, Arkansas, by 1.99 %. Hence, no significant increase in service loss would be expected by the proposed DTV operation on channel 5 at Little Rock. Thus, it is believed that the grant of this petition would not materially effect the service of KFSM-TV since the predicted service loss is less than the *de minimus* requirements.

The study also indicates that the proposed operation would increase service loss to WMC-TV, Memphis, Tennessee, by 1.97%. Hence, no significant increase in service loss would be expected by the proposed operation on channel 5 at Little Rock. Further, it is believed that a

grant of this petition would not materially effect the service of WMC-TV since the predicted service loss is less than the *de minimus* requirements.

It is understood that the table of separations for new DTV allotments set forth in Section 73.623(d) is not applicable as this is not a new allotment but, rather, a modification of an allotment included in the initial DTV Table of Allotments.

The fully constructed facility operating from the reference coordinates would also comply with the principal city coverage requirement of Section 73.623(c)1.

Conclusion

Channel 5 can be operated at Little Rock, Arkansas for DTV service while complying with the Commission's service and interference requirements with the following parameters:

Channel	5
Reference Coordinates	34-28-23 N , 92-12-11 W
Antenna Height	543 meters
Maximum ERP	2.2 kW
Antenna Pattern	Directional

Certification

This statement with associated exhibits was prepared by me or under my direction. All assertions contained in this statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are based on information from sources know reliable and are believed to be true.

A handwritten signature in black ink, appearing to read "D. Wallace", is written over a horizontal line.

Dennis W. Wallace

Technical Consultant

Wallace & Associates

April 27, 2000

Attachment: Interference Study KETS-DT

Interference Study

Use of Channel 5 at Little Rock, Arkansas

It is proposed to use DTV Channel 5 at Little Rock, Arkansas as follows:

Reference Coordinates:	34° 28' 23" N Lat
	92° 12' 11" W Lon
Height	543 Meters
Maximum ERP	2.2 kW
Antenna Pattern	Directional pattern per Table 2

Channel Study

A detailed analysis was undertaken to determine ERP limits for a DTV facility operating on channel 5 using TechWare software, which utilizes the parameters and methods contained in OET Bulletin 69. The results of these studies with respect to interference, based on the use of the proposed directional antenna system and the parameters listed above are summarized in Table 1. Thus, the proposed facility will meet the Commission's *de minimus* interference requirements with respect to other DTV and NTSC stations.

Table 1

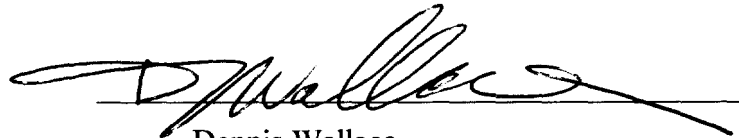
Station	Channel	Location	Increase Percent
KFSM-TV	5	Ft. Smith, AR	1.99
WMC-TV	5	Memphis, TN	1.97

These interference values are based on the directional antenna and ERP values listed in Table 2.

From the above, it can be seen that implementation of channel 5 for DTV service at Little Rock as proposed would comply with the commission's interference requirements.

Certification

This statement with associated exhibits was prepared by me or under my direction. All assertions contained in the statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are based on information from sources known to be reliable and are believed to be true.

A handwritten signature in black ink, appearing to read 'D. Wallace', with a long horizontal flourish extending to the right.

Dennis Wallace

Technical Consultant

Wallace & Associates

April 27, 2000

Table 2
Antenna Pattern for KETS-DT Little Rock, Arkansas
Antenna Pattern
TWTKETS_DT_01

Antenna pattern designed to provide required protection to WMC and KFSM

ERP: 2.2 kW RCAMSL 624 m

Degrees	Relative Field	Degrees	Relative Field	Degrees	Relative Field	Degrees	Relative Field
0.0	0.600	90.0	0.500	180.0	1.000	270.0	1.000
10.0	0.500	100.0	0.600	190.0	1.000	280.0	1.000
20.0	0.400	110.0	0.800	200.0	1.000	290.0	1.000
30.0	0.300	120.0	1.000	210.0	1.000	300.0	1.000
40.0	0.250	130.0	1.000	220.0	1.000	310.0	1.000
50.0	0.200	140.0	1.000	230.0	1.000	320.0	1.000
60.0	0.250	150.0	1.000	240.0	1.000	330.0	1.000
70.0	0.300	160.0	1.000	250.0	1.000	340.0	1.000
80.0	0.400	170.0	1.000	260.0	1.000	350.0	0.800